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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/580,062

02/12/2007

Michael Hopkinson

70347

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7590

01/26/2012

Syngenta Corp Protection, Inc.

410 Swing Road

Greensboro, NC 27409

EXAMINER

BROWN, COURTNEY A

ART UNIT

PAPER NUMBER

1617

MAIL DATE

DELIVERY MODE

01/26/2012

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

<p align="center">Advisory Action Before the Filing of an Appeal Brief</p>	Application No. 10/580,062	Applicant(s) HOPKINSON ET AL.
	Examiner COURTNEY BROWN	Art Unit 1617

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 23 December 2011 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☐ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

- a) ☒ The period for reply expires 4 months from the mailing date of the final rejection.
 b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

NOTICE OF APPEAL

2. ☒ The Notice of Appeal was filed on 23 December 2011. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

AMENDMENTS

3. ☐ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because
 (a) ☐ They raise new issues that would require further consideration and/or search (see NOTE below);
 (b) ☐ They raise the issue of new matter (see NOTE below);
 (c) ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
 (d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: _____. (See 37 CFR 1.116 and 41.33(a)).

4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).
 5. ☐ Applicant's reply has overcome the following rejection(s): _____.
 6. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
 7. ☒ For purposes of appeal, the proposed amendment(s): a) ☐ will not be entered, or b) ☒ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.
 The status of the claim(s) is (or will be) as follows:
 Claim(s) allowed: _____.
 Claim(s) objected to: _____.
 Claim(s) rejected: 1-5,8-12 and 14-23.
 Claim(s) withdrawn from consideration: _____.

AFFIDAVIT OR OTHER EVIDENCE

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).
 9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing a good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).
 10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

REQUEST FOR RECONSIDERATION/OTHER

11. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because:
See Continuation Sheet.
 12. ☐ Note the attached Information *Disclosure Statement(s)*. (PTO/SB/08) Paper No(s). _____.
 13. ☐ Other: _____.

/Janet Epps-Smith/
Primary Examiner, Art Unit 1633

Continuation of 11. does NOT place the application in condition for allowance because: The examiner maintains the rejection of claims 1-5, 8-12 and 14-23 under 35 U.S.C. 103(a) as being unpatentable over Wichert et al. (US 6,890,889 B1) in view of Cones (US 6,924,250 B2) and further in view of Burke (US Patent 5,620,678) and Ferrett et al. (US 2001/0051591 A1) for reasons of record. Applicant's arguments have been fully considered, but are not found persuasive.

For at least the reasons given in Applicants' June 15, 2011 Request for Reconsideration, Applicants maintain the following positions:

(1) the teaching of Wichert specifically instructs one skilled in the art to formulate herbicidal compositions containing mesotrione so as to have a weight ratio of urea ammonium nitrate fertilizer to mesotrione at a much higher weight ratio than Applicants' recited weight ratio of ammonium nitrate (i.e., component c) to at least one pesticide (i.e., component b); (2) even when the teaching of Wichert is viewed most favorably to Examiner Brown's position, the teaching of Wichert still instructs one skilled in the art to utilize a minimum ratio of urea ammonium nitrate fertilizer to mesotrione of at least 0.53:1, which is substantially greater than the "less than or equal to 0.3:1" ratio as recited in Applicants' claimed invention; (3) Although the August 23, 2011 final Office Action states on page 4 that claims 1-5, 8-12 and 14-23 are rejected under 35 U.S.C. 103(a) in view of the combination of the teachings of Wichert, Cones, Burke and Ferrett, the rejection appears to also rely on the teaching of Hudson, similar to the previous rejection in the March 15, 2011 non-final Office Action. See, for example, page 6, lines 11-16, page 8, line 14 to page 9, line 2, and page 12, line 17 to page 13, line 19 of the August 23, 2011 final Office Action. (3) in addition to teaching away from Applicants' claimed invention as discussed above, the teaching of Wichert, alone or in combination with the art of record and a general understanding of the state of the art, fails to suggest to one skilled in the art the benefits of utilizing ammonium nitrate in a pesticidal concentrate at a ratio of less than or equal to 0.3:1 (i.e., ammonium nitrate to mesotrione) as recited in Applicants' claimed invention; (4) the only motivation for (i) ignoring the specific teaching of Wichert directed to using a greater than 0.53:1 weight ratio of ammonium nitrate to mesotrione in a herbicidal composition and (ii) using Burke's disclosed insecticidal aerosol composition weight ratio for oleamide DEA to pyrethrum (e.g., a weight ratio of 0.30:1.25 disclosed in Example IV of Burke) in place of Wichert's greater than 0.53:1 weight ratio of ammonium nitrate to mesotrione has been gleaned from Applicants' original specification, not from the art of record; (5) one skilled in the art, given the teaching of Wichert directed to herbicidal compositions comprising, inter alia, mesotrione and urea ammonium nitrate (UAN) fertilizer, would not have (i) sought out the teaching of Hudson directed to specific corrosion inhibitors for preventing corrosion due to UAN fertilizer compositions (e.g., specific corrosion inhibitors in the form of poly- and mono-functional carboxylic acids corrosion inhibitors), and (ii) subsequently utilized ammonium nitrate as a corrosion inhibitor for UAN fertilizer compositions instead of Hudson's poly- and mono-functional carboxylic acids corrosion inhibitors; (6) one skilled in the art, given the teaching of Wichert directed to mesotrione formulations, would not have (i) sought out the teaching of Ferrett directed to methods of safening crops from the phytotoxic effects of glyphosate by utilizing specific ionic salts in combination with the glyphosate (see, Ferrett, paragraphs [0017]-[0018]), and (ii) subsequently incorporated one of Ferrett's disclosed ionic salt safeners (for glyphosate) into Wichert's mesotrione formulations; (7) the only motivation for incorporating one of Ferrett's disclosed ionic salt safeners (for glyphosate) into Wichert's mesotrione formulations, as suggested by Examiner Brown, has been gleaned from Applicants' original specification, not from the art of record; (8) the proposed combination of the teachings of Wichert, Cones, Burke, Hudson and Ferrett actually teaches away from the use of ammonium nitrate as a corrosion inhibitor in a pesticidal composition given that the teaching of Hudson (i) discloses specific corrosion inhibitors in the form of monocarboxylic acids, polycarboxylic acids, or mixtures thereof for preventing corrosion due to UAN fertilizer compositions, (ii) clearly discloses that ammonium nitrate (in UAN fertilizer compositions) causes corrosion, and (iii) due to the corrosive nature of ammonium nitrate, corrosion inhibitors in the form of monocarboxylic acids, polycarboxylic acids, or mixtures thereof should be utilized, not ammonium nitrate; (9) even if the proposed combination of the teaching of Wichert with the teachings of Cones, Burke, Hudson and Ferrett were deemed proper (and for at least the reasons discussed in Applicants' June 15, 2011 Request for Reconsideration and the reasons herein, Applicants submit that it is improper), the proposed combination of the teaching of Wichert with the teachings of Cones, Burke, Hudson and Ferrett would still fail to teach or suggest an ammonium nitrate salt additive in a pesticide concentrate at a ratio of less than or equal to 0.3:1 (i.e., ammonium nitrate salt additive to mesotrione) as recited in Applicants' claimed invention; and (10) even if the proposed combination of the teaching of Wichert with the teachings of Cones, Burke, Hudson and Ferrett were deemed proper (and for at least the reasons discussed in Applicants' June 15, 2011 Request for Reconsideration and the reasons herein, Applicants submit that it is improper), the proposed combination of the teaching of Wichert with the teachings of Cones, Burke, Hudson and Ferrett would teach or suggest a desired amount of urea ammonium nitrate salt so as to provide fertilizer properties/characteristics to the resulting composition.

However, the Examiner is not persuaded by Applicants' arguments. Wichert et al. teach herbicidal formulations comprising: (A) mesotrione (2-[4-methylsulfonyl-2-nitrobenzoyl]-1, 3-cyclohexanedione); (B) about 0.3 to about 2.5 percent of crop oil concentrate or about 0.3 to about 2.5 percent of methylated seed oil; (C) about 0.5 to about 5% of a urea ammonium nitrate on a volume to volume basis based on the total of (A), (B), (C), (D) and a diluent (abstract, limitation of instant claims 1, 14 and 18). Wichert et al. teach the use of water as the diluent component. The secondary teaching of Burke was joined to show that a composition comprising the claimed ratio of the ionic nitrate salt additive to the pesticide component wherein the ratio is less than or equal to 0.3:1 was known at the time the instant invention was filed. Specifically, Burke teaches various formulations of insecticidal aerosols. Burke teaches a formulation comprising 1.25 % pyrethrum as an insecticide component, 0.300% Oleamide DEA as a corrosion inhibitor component and 33.172 % deionized water (see Example IV, column 3, lines 50-60). Burke teaches that the aerosol insecticidal composition consists essentially of organophosphate active insecticidal ingredient in the range of 0.01%-10% (see claim 1 of Burke) and that the aerosol may include sodium nitrate as a corrosion inhibitor (see column 2, lines 32-34). Burke further teaches that in water-solvent-based aerosol compositions, the corrosion inhibitor is added to protect the aerosol can from corrosion which would otherwise occur due to the can's contact with the water ingredient (column 3, lines 2-5). Therefore, the use of the claimed ratio of an ionic nitrate salt additive to a pesticide component wherein the ratio is less than or equal to 0.3:1 would have been obvious to one of ordinary skill in the art at the time the instant invention was filed. Cones teaches that formulations comprising mesotrione may contain as little as about 0.5% to as much as 95% or more in a synergistic combination of

mesotrione and a second herbicide (column 4, lines 25-29). Thus, one would be motivated to devise a composition that would provide a herbicidal synergistic combination as well as prevent corrosion. Ferrett et al. teach that salts such as sodium chloride can provide the cations necessary for safening a plant from phytotoxic injury caused by at least one N-phosphonomethyl-glycine when the salt is applied to a locus of a plant for which safening is desired. One of ordinary skill in the art would be motivated to make this combination with the expected benefit of safening a plant from phytotoxic injury caused by mesitrione and/or mesitrione chelate compounds. Hudson teaches that corrosion protection is retained at lower pH values when comparing compositions in a pH range of 6.8 and 7.2 which would result if the solutions were stored for long periods and the ammonia was allowed to vent (column 6, table 4). Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to engage in routine experimentation to determine optimal or workable pH ranges that produce expected results. The claims would have been obvious because a person of ordinary skill in the art would have been motivated to combine the prior art to achieve the claimed invention and that there would have been a reasonable expectation of success. Therefore, the claimed invention as a whole would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made because every element of the invention has been fairly suggested by the cited reference.

Further, Applicants note that the teaching of Wichert is directed to herbicidal compositions comprising fertilizers, while the teaching of Burke is directed to water-solvent-based aerosol insecticidal compositions. Applicants argue that one skilled in the art would not have been motivated to substitute a herbicide from Wichert's herbicidal composition comprising fertilizers for an insecticide in Burke's water-solvent-based aerosol insecticidal composition as suggested in the August 23, 2001 final Office Action. Applicant argues that the August 23, 2001 final Office Action appears to be relying on and guided by the disclosure and discovery of Applicants' original specification, not what is suggested in the prior art. However, the Examiner is not persuaded by Applicants' argument. In response to applicants' argument that one skilled in the art would not have been motivated to substitute a herbicide from Wichert's herbicidal composition comprising fertilizers for an insecticide in Burke's water-solvent-based aerosol insecticidal composition, the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981). In response to applicants' argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

In light of the forgoing discussion, the Examiner concludes that the subject matter defined by the instant claims would have been obvious within the meaning of 35 USC 103(a).

Thus, the rejection is maintained for reasons of record and the foregoing commentary.
Refer to the Final rejection, mailed on August 23, 2011.

Claim 1-5,8-12 and 14-23 remain rejected.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR Only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Courtney Brown, whose telephone number is 571-270-3284. The examiner can normally be reached on Monday-Friday from 8 am to 4:30 pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's Supervisor, Fereydoun Sajjadi can be reached on 571-272-3311. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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